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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/986,293      | 11/08/2001  | Hideo Okada          | 826.1769            | 5356             |

21171 7590 11/06/2002

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EXAMINER

DOAN, JENNIFER

ART UNIT PAPER NUMBER

2874

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/986,293

Applicant(s)

OKADA ET AL.

Examiner

Jennifer Doan

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings, filed on November 8, 2001, are accepted by examiner.

### ***Specification***

3. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Cao et al. (U.S. Patent 6,343,866).

Regarding claim 1, Cao et al. disclose, Fig. 13, a variable wavelength dispersion compensator comprising an angular dispersion unit (240) giving angular dispersion to a plurality of the wavelengths of input beams (246) and a surface-shape variable mirror unit (254) returning the beams to the angular dispersion unit (240), wherein the wavelength dispersion is given to the beams by reflecting the beams from the angular dispersion unit (240) on the mirror unit (254), inputting the reflected beams to the angular dispersion unit again and outputting the inputted beams from the angular dispersion unit (240) as shown in Fig. 13 and column 16, lines 33-55.

Regarding claim 2, Cao et al. disclose a variable wavelength dispersion compensator further comprising a mirror face unit reflecting beams and a plurality of stage units setting a mirror face to a desired shape which contacts a back surface of the mirror unit as shown in Fig. 33B, column 22, lines 55-67 and column 23, lines 1-29.

Regarding claims 4 and 5, Cao et al. disclose, Fig. 73, a variable wavelength dispersion compensator further comprising a branching unit branching the angular-dispersed beams into a plurality of beam groups with a plurality of different wavelengths, wherein the plurality of the mirror units (755a, 755b and 755c) are

provided and each surface shape is set so that wavelength dispersion compensated for each branched beam group; wherein the plurality of the mirror units are incorporated into one mirror unit which has a surfaced transformed in a two-directional direction so that each branched beam group receives on a part of the surface and prescribed wavelength dispersion given to the branched beam group (column 36).

Regarding claims 6 and 7, Cao et al. disclose a variable wavelength dispersion compensator further comprising the branching unit is a diffraction grid (column 27, lines 40-52 and column 28, lines 39-42) and wherein the branching unit is a VIPA (240, Fig. 15).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of

each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cao et al. as cited above.

Cao et al. disclose all the limitations of the claimed invention except for the mirror unit being a thin plate, the elasticity as recited in claim 3. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a thin plate, the elasticity to make the mirror, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shirasaki (U.S. Patent 5,969,866 and 6,028,706) disclose a VIPA used to produce chromatic dispersion.

10. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 11/08/2001, have all been considered and made of record (note the attached copy of form PTO-1449).

11. Any inquiry concerning the merits of this communication should be directed to Examiner Jennifer Doan whose telephone number is (703) 308-6179. The

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examiner can normally be reached on Monday to Thursday from 6:30am to 4:00pm, first Friday off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick, can be reached on (703) 308-4819. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JD

JD

October 31, 2002

  
Allen E. Ullah  
Primary Examiner